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**Thesis Title:**

Robust Speech Recognition using Speech Enhancement

**Supervisors:**

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**Citation:**

*This thesis laid the fundamentals for developing Automatic Speech Recognition (ASR) technology for use in the Australian automotive industry. Two approaches to designing single-channel speech enhancement techniques specifically for integration with in-car ASR systems were proposed, and both were shown to provide significant improvements in terms of recognition performance as well as processing and hardware requirements. This research also created the first in-car speech database recorded by Australian speakers in a range of common Australian driving scenarios.*